

[4910-13-U]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39 [66 FR 21067 4/27/2001]

[Docket No. 2000-NE-29-AD; Amendment 39-12192; AD 2001-08-15]

RIN 2120-AA64

Airworthiness Directives; Rolls-Royce Corporation (formerly Allison Engine Company) AE 3007 Series Turbofan Engines

AGENCY: Federal Aviation Administration, DOT.

ACTION: Final rule; request for comments.

SUMMARY: This amendment adopts a new airworthiness directive (AD) that is applicable to Rolls-Royce Corporation (formerly Allison Engine Company) AE 3007A, AE 3007A1/1, AE 3007A1/2, AE 3007A1, AE 3007A1/3, AE 3007A1P, and AE 3007A3 turbofan engines. This action requires initial and repetitive inspections for bearing material contamination of the engine oil system. This amendment is prompted by reports of rapid failures of the No. 1 bearing. The actions specified in this AD are intended to detect the rapid failure of the No. 1 bearing, which could result in smoke in the cabin and an uncommanded in-flight engine shutdown.

DATES: Effective May 14, 2001. The incorporation by reference of certain publications listed in the rule is approved by the Director of the Federal Register as of May 14, 2001.

Comments for inclusion in the Rules Docket must be received on or before June 26, 2001.

ADDRESSES: Submit comments in triplicate to the Federal Aviation Administration (FAA), New England Region, Office of the Regional Counsel, Attention: Rules Docket No. 2000-NE-29-AD, 12 New England Executive Park, Burlington, MA 01803-5299. Comments may also be sent via the Internet using the following address: "9-ane-adcomment@faa.gov." Comments sent via the Internet must contain the docket number in the subject line.

The service information referenced in this AD may be obtained from Allison Engine Company, Inc., P.O. Box 420, Indianapolis, IN 46206 USA, Phone: (317) 230-6400; Fax: (317) 230-4243. This information may be examined at the FAA, New England Region, Office of the Regional Counsel, 12 New England Executive Park, Burlington, MA; or at the Office of the Federal Register, 800 North Capitol Street, NW., suite 700, Washington, DC.

FOR FURTHER INFORMATION CONTACT: Kyri Zaroyiannis, Aerospace Engineer, Chicago Aircraft Certification Office, FAA, Small Airplane Directorate, 2300 East Devon Avenue, Des Plaines, IL 60018; telephone: (847) 294-7836; fax: (847) 294-7834.

SUPPLEMENTARY INFORMATION: The Rolls-Royce Corporation (RR) (formerly Allison Engine Company) has notified the FAA that there is a design problem with the No. 1 bearing installed on the AE 3007A, AE 3007A1/1, AE 3007A1/2, AE 3007A1, AE 3007A1/3, AE 3007A1P, and AE 3007A3 turbofan engines. This can lead to an event involving smoke in cabin, followed by an uncommanded in-flight engine shutdown. RR has determined that this problem is the result of the rapid failure of the number 1 bearing installed on the AE 3007A, AE 3007A1/1, AE 3007A1/2, AE 3007A1, AE 3007A1/3, AE 3007A1P and AE 3007A3 turbofan engines. This condition, if not corrected, could result in the rapid failure of the number 1 bearing, which could result in smoke in the cabin and an uncommanded in-flight engine shutdown.

RR is developing a number of design modifications for affected models which, if installed, may reduce the rate of No. 1 bearing distress. The FAA may take additional mandatory action to incorporate these modifications and to eliminate the need for the inspections mandated by this AD. The compliance time of this AD was chosen based on the failure sequence of the number 1 bearing.

Manufacturer's Service Information

The FAA has reviewed and approved the technical contents of Rolls-Royce Alert Service Bulletin (ASB) AE 3007A-A-79-027, dated August 17, 2000, that provides procedures for inspecting for bearing material contamination of the engine oil system..

Determination of an Unsafe Condition

Since an unsafe condition has been identified that is likely to exist or develop on other engines of the same type design, this AD is being issued to require initial and repetitive inspections for bearing material contamination of the engine oil system, to prevent events caused by the rapid failure of the number 1 bearing. The actions are required to be accomplished in accordance with the ASB described previously.

Immediate Adoption of This AD

Since a situation exists that requires the immediate adoption of this regulation, it is found that notice and opportunity for prior public comment hereon are impracticable, and that good cause exists for making this amendment effective in less than 30 days.

Comments Invited

Although this action is in the form of a final rule that involves requirements affecting flight safety and, thus, was not preceded by notice and an opportunity for public comment, comments are invited on this rule. Interested persons are invited to comment on this rule by submitting such written data, views, or arguments as they may desire. Communications should identify the Rules Docket number and be submitted in triplicate to the address specified under the caption "ADDRESSES." All communications received on or before the closing date for comments will be considered, and this rule may be amended in light of the comments received. Factual information that supports the commenter's ideas and suggestions is extremely helpful in evaluating the effectiveness of the AD action and determining whether additional rulemaking action would be needed.

Comments are specifically invited on the overall regulatory, economic, environmental, and energy aspects of the rule that might suggest a need to modify the rule. All comments submitted will be available, both before and after the closing date for comments, in the Rules Docket for examination by interested persons. A report that summarizes each FAA-public contact concerned with the substance of this AD will be filed in the Rules Docket.

Commenters wishing the FAA to acknowledge receipt of their comments submitted in response to this notice must submit a self-addressed, stamped postcard on which the following statement is made: "Comments to Docket Number 2000-NE-29-AD." The postcard will be date stamped and returned to the commenter.

Regulatory Impact

This final rule does not have federalism implications, as defined in Executive Order No. 13132, because it would not have a substantial direct effect on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government. Accordingly, the FAA has not consulted with state authorities prior to publication of this final rule.

The FAA has determined that this regulation is an emergency regulation that must be issued immediately to correct an unsafe condition in aircraft, and is not a "significant regulatory action" under Executive Order 12866. It has been determined further that this action involves an emergency regulation under DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979). If it is determined that this emergency regulation otherwise would be significant under DOT Regulatory Policies and Procedures, a final regulatory evaluation will be prepared and placed in the Rules Docket. A copy of it, if filed, may be obtained from the Rules Docket at the location provided under the caption "ADDRESSES."

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

Adoption of the Amendment

Accordingly, pursuant to the authority delegated to me by the Administrator, the Federal Aviation Administration amends part 39 of the Federal Aviation Regulations (14 CFR part 39) as follows:

PART 39 - AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§39.13 [Amended]

2. Section 39.13 is amended by adding the following new airworthiness directive: 2001-08-15

AIRWORTHINESS DIRECTIVE



Aircraft Certification Service
Washington, DC

U.S. Department
of Transportation
**Federal Aviation
Administration**

We post ADs on the internet at "av-info.faa.gov"

The following Airworthiness Directive issued by the Federal Aviation Administration in accordance with the provisions of Title 14 of the Code of Federal Regulations (14 CFR) part 39, applies to an aircraft model of which our records indicate you may be the registered owner. Airworthiness Directives affect aviation safety and are regulations which require immediate attention. You are cautioned that no person may operate an aircraft to which an Airworthiness Directive applies, except in accordance with the requirements of the Airworthiness Directive (reference 14 CFR part 39, subpart 39.3).

2001-08-15 Rolls-Royce Corporation: Amendment 39-12192. Docket 2000-NE-29-AD.

Applicability

This airworthiness directive (AD) is applicable to Rolls-Royce Corporation (formerly Allison Engine Company) AE 3007A, AE 3007A1/1, AE 3007A1/2, AE 3007A1, AE 3007A1/3, AE 3007A1P, and AE 3007A3 turbofan engines. These engines are installed on, but not limited to, Embraer Model EMB-145, EMB-145ER, EMB-145MR, EMB-145LR, EMB-135ER and EMB-135LR airplanes.

Note 1: This AD applies to each engine identified in the preceding applicability provision, regardless of whether it has been modified, altered, or repaired in the area subject to the requirements of this AD. For engines that have been modified, altered, or repaired so that the performance of the requirements of this AD is affected, the owner/operator must request approval for an alternative method of compliance in accordance with paragraph (c) of this AD. The request should include an assessment of the effect of the modification, alteration, or repair on the unsafe condition addressed by this AD; and, if the unsafe condition has not been eliminated, the request should include specific proposed actions to address it.

Compliance

Compliance with this AD is required as indicated, unless already done.

To detect the rapid failure of the No. 1 bearing, which could result in smoke in the cabin and an uncommanded in-flight engine shutdown, do the following:

Inspection for Bearing Material Contamination of the Oil System

(a) Inspect for bearing material contamination of the oil system in accordance with 2.A.(1) through 2.A.(2) of the Accomplishment Instructions of Rolls-Royce alert service bulletin (ASB) No. AE 3007A-A-79-027, dated August 17, 2000, as follows:

(1) Do an initial inspection within 30 flight hours, or three flight days after the effective date of this AD, whichever occurs first.

(2) Thereafter, inspect for every 30 flight hours, or every three flight days, whichever occurs first.

Terminating Action

(b) Incorporation of Embraer Service Bulletin 145-79-0001, dated April 24, 1998, is considered terminating action for the inspections required by paragraphs (a)(1) and (a)(2) of this AD.

Alternative Methods of Compliance

(c) An alternative method of compliance or adjustment of the compliance time that provides an acceptable level of safety may be used if approved by the Manager, Chicago Aircraft Certification Office (ACO). Operators shall submit their requests through an appropriate FAA Principal Maintenance Inspector, who may add comments and then send it to the Manager, Chicago ACO.

Note 2: Information concerning the existence of approved alternative methods of compliance with this airworthiness directive, if any, may be obtained from the Chicago ACO.

Special Flight Permits

(d) Special flight permits may be issued in accordance with §§ 21.197 and 21.199 of the Federal Aviation Regulations (14 CFR 21.197 and 21.199) to operate the aircraft to a location where the requirements of this AD can be accomplished.

(e) The inspection shall be done in accordance with Rolls-Royce alert service bulletin No. AE 3007A-A-79-0027, dated August 17, 2000.

This incorporation by reference was approved by the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. Copies may be obtained from Allison Engine Company, Inc., P.O. Box 420, Indianapolis, IN 46206 USA, Phone: 317-230-6400; Fax: 317-230-4243. Copies may be inspected at the FAA, New England Region, Office of the Regional Counsel, 12 New England Executive Park, Burlington, MA; or at the Office of the Federal Register, 800 North Capitol Street, NW, suite 700, Washington, DC.

(f) This amendment becomes effective on May 14, 2001.

FOR FURTHER INFORMATION CONTACT: Kyri Zaroyiannis, Aerospace Engineer, Chicago Aircraft Certification Office, FAA, Small Airplane Directorate, 2300 East Devon Avenue, Des Plaines, IL 60018; telephone: (847) 294-7836; fax: (847) 294-7834.

Issued in Burlington, Massachusetts, on April 16, 2001.

Francis A. Favara, Acting Manager, Engine and Propeller Directorate, Aircraft Certification Service.